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EXAMINER

YANG, CLARA I

| ART UNIT | PAPER NUMBER |
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2635

DATE MAILED: 06/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/867,276

Applicant(s)

MENARD ET AL.

Examiner

Clara Yang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 05_06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed on 28 February 2002 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the non-patent information referred to therein has not been considered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the camera in claim 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 9 calls for the position sensor of claim 1 to include a camera. The specification discloses that system 100 includes an apparatus to provide a camera view of the door and that the camera view is derived from a video camera or a still camera (see page 12, lines 27 - 30). However, the applicant omits teaching that the camera is a position sensor and is adapted for generating a first position signal based on a position of the door. Consequently, it is unclear how the camera is able to determine the position of the door prior in order to generate a position signal.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "substantially" in claims 5 and 6 is a relative term that renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The limitations "wherein the transceiver is substantially compatible with standards under IEEE 802.15" (claim 5) and "wherein the transceiver is substantially compatible with Bluetooth® technical specification version 1.0" (claim 6) are rendered indefinite.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 27 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,388,559 (Cohen).

Referring to claim 27, Cohen's method of operating a garage door, as shown in Fig. 4, comprises the steps of: (a) door control circuit 110 transmitting state signal 111 or position signal on a channel at step 401 (see Col. 4, lines 12 - 13); (b) remote control device 170 providing an indication to a user based on state signal 111 at step 410 (see Col. 4, lines 54 - 56); and (c) door control circuit 110 receiving an instruction signal, which is based on a user's actuation of input mechanism 318, on the channel (see Col. 3, lines 21 - 23). Because door control circuit 110 and remote control device 170 are able to communicate, a wireless communication channel must be established with both devices.

Regarding claim 31, Cohen teaches that remote control device 170 provides visual indication of state signal 111 to the user via display 316 (see Col. 3, lines 27 - 29 and Col. 4, lines 54 - 55).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1, 2, 4 - 6, 8, 10, 12 - 16, 18, 19, and 21 - 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,388,559 (Cohen) in view of U.S. Patent Application Publication No. US 2001/0056502 A1 (Hollstrom et al.) and U.S. Patent No. 6,161,005 (Pinzon).

Referring to claims 1, 2, 4 - 6, 8, 15, 16, and 21 - 24, Cohen's door control circuit 110, as shown in Fig. 2, comprises: (a) processor 200 coupled to door opener/closer 130 and having a program memory 202 for storing program instructions (see Col. 2, lines 31 - 35 and 46 - 51); (b) a first position sensor coupled to processor 200 (see Col. 2, lines 1 - 17 and 46 - 51); and (c) receiver 210 and transmitter 212 coupled to processor 200 and forming a short-range transceiver module (see Col. 2, lines 39 - 42). Per Cohen, receiver 210 is adapted to (d) receive wireless open/close commands from remote control device 170 (see Col. 2, lines 40 - 42 and Col. 3, lines 21 - 29). Cohen also discloses that U.S. Patent No. 4,463,292 (Engelmann) is incorporated by reference. Engelmann teaches a remote garage door opener having a radio frequency (RF) receiver 23 (see Engelmann, Col. 2, lines 36 - 39) and a timer switch S2 or contact switch that is contacted by door 11 when the door is within one inch from its fully open position (see Engelmann, Col. 2, lines 3 - 7 and 43 - 46); consequently, it is understood that Cohen's first

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position sensor is a contact switch and that Cohen's transceiver is an RF transceiver that uses a short-range communication protocol. Referring to Fig. 4, Cohen further teaches that control circuit 110 receives a signal indicating the position of door 140 and causes transmitter 212 to (e) transmit state signal 111 indicative of door 140's position to remote control device 170 at step 401 (see Col. 2, lines 2 - 5 and 39 - 42; and Col. 4, lines 12 - 13). Cohen is silent on door control circuit 110's transceiver communicating with remote control device 170 via frequency hopping spread spectrum (FHSS) at a frequency of approximately 2.45 GHz, wherein the transceiver is compatible with standards under IEEE 802.15 and Bluetooth® technical specification version 1.0. Cohen also fails to teach that the RF transceiver module includes a transceiver adapted for receiving open/close commands and transmitting state signal 111 via a long-range communication protocol, wherein the long-range communication protocol includes a cellular telephone communication protocol.

In an analogous art, Hollstrom teaches a device and method for operating electronic utility devices from a mobile telephone. Referring to Fig. 1, mobile telephone 1 has an antenna 17 for establishing a Bluetooth® link 32 to an electronic utility device 30 via wireless application protocol (WAP) server module 31 (see Section [0023]). Here it is understood that electronic utility devices 400 include a garage door opener (see Section [0051]). As shown in Fig. 3, Hollstrom's WAP server module 300 or device includes: (a) CPU 310 coupled to electronic utility device 400 via utility device interface 350; and (b) WAP server 340 coupled to CPU 310. WAP server 340 comprises adaptation layer 345 for cable interface 460, IR interface 362, and Bluetooth® interface 364 or short-range transceivers (see Section [0032]), thereby enabling mobile telephone 1 to control electronic utility device 400 via Bluetooth® link 32 and WAP server module 300. Bluetooth® uses the unlicensed Industrial, Scientific, and Medical (ISM)

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band (2400 – 2483.5 MHz) and uses FHSS. Because the IEEE 802.15 standard is based on Bluetooth®, Hollstrom's WAP server module 300 is compatible with standards under IEEE 802.15. In addition, because Bluetooth® technical specification version 1.1 emerged formally and finally on 22 February 2001, Hollstrom's WAP server module 300 must be compatible with Bluetooth® technical specification version 1.0.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen's door control circuit 110 such that its transceiver module (a) communicates via FHSS, (b) operates in the 2.45 GHz band, (c) is compatible with IEEE 802.15 standards, and (d) is compatible with Bluetooth® technical specification version 1.0 as taught by Hollstrom because Bluetooth® is a widely adopted international standard that reduces interference among devices operating in the 2.45 GHz band by using FHSS (see www.thewirelessdirectory.com/Bluetooth-Overview/Bluetooth-Specification.htm).

In another analogous art, Pinzon's remote door locking/unlocking system, as shown in Fig. 1, comprises: (a) controller 4 or processor having instructions for generating a command to operate electronic door locking mechanism 2, which locks/unlocks door 1 (see Col. 3, lines 6 – 13; Col. 4, lines 34 – 45; and Col. 5, lines 9 – 15); (b) network transceiver 6 or long-range transceiver (see Col. 5, lines 9 – 15 and Col. 6, lines 19 – 22); and (c) line-of-sight receiver 7 or short-range receiver. Per Pinzon, network transceiver 6 is a cellular headset 22 (see Col. 5, lines 54 – 63) and line-of-sight receiver 7 is either an RF or infrared (IR) receiver. Pinzon teaches that the system is suitable for garage doors (see Col. 2, lines 61 – 65; Col. 3, lines 47 – 53; and Col. 7, lines 62 – 67). Network transceiver 6 is adapted to receive commands from and transmit information to any device with access to a telephone network, including wireless telephone handset 8, wired telephone 9, or computer 10 (see Col. 3, lines 35 – 46 and Col. 5, lines 9 – 15).

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Pinzon also states that the telephone network utilized by the system may be an analog or digital cellular network, personal communications service (PCS), or a satellite network (see Col. 3, lines 54 - 62); thus Pinzon's network transceiver 6 is adapted to receive commands and transmit information in a protocol compatible with a cellular telephone communication protocol.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen and Hollstrom's door control circuit 110 as taught by Pinzon because a door control circuit 110 having a long-range communications transceiver in addition to a short-range communications transceiver enables a user to control and monitor the garage door opener from a remote location (see Pinzon, Col. 2, lines 27 - 32), thereby enhancing the flexibility and effectiveness of the system.

Regarding claims 10 and 18, Cohen fails to teach connecting a battery to processor 200 and the transceiver module.

As shown in Fig. 3, removable and rechargeable battery pack 44 is connected to Pinzon's transceiver module (formed by RF receiver 42 and telephone circuitry 43) and controller circuitry 45.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen's door control circuit 110 such that a battery is coupled to processor 200 and the transceiver module as taught by Pinzon because a battery enables a user to control the system during power outages.

Regarding claims 12 and 19, Cohen's door control circuit 110 lacks a second position sensor coupled to processor 200 and adapted for generating a second position signal based on a position of a second door, wherein the transceiver is adapted for transmitting the second position signal. However, it would have been obvious to one of ordinary skill in the art at the

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time the invention was made to modify Cohen's door control circuit 110 such that a second position sensor is coupled to processor 200 since it has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

Regarding claims 13 and 25, though processor 200 is accessible via a cellular network, Cohen fails to teach that processor 200 is able to generate a web page accessible from the Internet.

Hollstrom teaches that each electronic utility device 400, as shown in Fig. 4, comprises WAP contents 440, which comprises wireless markup language (WML) pages 438 or web pages and WML scripts 439 and is connected to CPU 310 via WAP server module interface 460. When mobile telephone 1 connects to a WAP server 340 via a serial cable, IR, or Bluetooth®, WAP server 340 retrieves and forwards a WML start page to mobile telephone 1's WAP client 240. Though Hollstrom omits teaching that WAP server 340 is available on the Internet, Hollstrom does disclose in Section [0046] a user establishing a dial-up GSM (Global System for Mobile Communication) data connection 22 (see Fig. 1) with an Internet service provider such that mobile telephone 1's WAP browser 240 connects to a specified WAP server. Consequently, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hollstrom's WAP server 340 such that it is available on the Internet because a WAP server 340 that is accessible through the Internet allows a user to use mobile telephone 1 to control an electronic utility device 400 from remote locations.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen's door control circuit 110 as taught by Hollstrom because a processor 200 having a WAP server and WAP contents enables a user to communicate

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with door opener/closer 130 via the Internet and to monitor/control door opener/closer 130 via user-friendly WLM pages (see Hollstrom, Sections [0006] and [0012]).

Regarding claims 14 and 26, Cohen's door control circuit 110 lacks an audio transducer coupled to processor 200.

Pinzon teaches that speech decoder circuitry could be included with speech/voice recognition software such that controller 4 responds to voice signals instead of dual tone multiple frequency (DTMF) tones (see Col. 8, lines 29 - 34). In addition, a microphone or audio transducer could be included for direct voice actuated locking/unlocking using the same speech/voice recognition software (see Col. 8, lines 35 - 43). It is understood that the speech decoder circuitry and microphone are both connected to controller 4 in order to enable controller 4 to lock/unlock electronic door locking mechanism 2.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen's door control circuit 110 such that an audio transducer is connected to processor 200 as taught by Pinzon because voice actuated systems are user-friendly.

11. Claims 1 - 6, 8 - 10, 12, 13, 15 - 19, and 21 - 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,388,559 (Cohen) in view of U.S. Patent Application Publication No. US 2001/0056502 A1 (Hollstrom et al.) and U.S. Patent Application Publication No. US 2004/0036573 A1 (Fitzgibbon et al.).

Referring to claims 1 - 6, 8, 15 - 17, and 21 - 24, as explained above in Section 10, Cohen teaches all the limitations of claims except an RF transceiver module including a transceiver adapted for (1) communicating via FHSS, (2) operating in the 2.45 GHz band, and (3) conforming with IEEE 802.15 standards and Bluetooth® technical specification version 1.0. In

addition, Cohen's transceiver module is (4) unable to receive open/close commands and transmitting state signal 111 via a long-range communication protocol, wherein the long-range communication protocol includes a cellular telephone protocol and a pager protocol.

In an analogous art, as previously explained in Section 10, Hollstrom teaches the limitations of claims 1 and 4 - 6.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen's door control circuit 110 such that its transceiver module (a) communicates via FHSS, (b) operates in the 2.45 GHz band, (c) is compatible with IEEE 802.15 standards, and (d) is compatible with Bluetooth® technical specification version 1.0 as taught by Hollstrom because Bluetooth® is a widely adopted international standard that reduces interference among devices operating in the 2.45 GHz band by using FHSS (see www.thewirelessdirectory.com/Bluetooth-Overview/Bluetooth-Specification.htm).

In another analogous art, Fitzgibbon teaches an apparatus 10 for controlling access to a garage door (see Section [0017]). As shown in Figs. 1 and 3, apparatus 10/200 comprises: (a) a microcontroller 26/210 connected to an existing garage door opener (GDO) 202 via control interface 30 or RF transmitter 32/212 (see Sections [0017] and [0027]); (b) door-position transmitter 262 connected to microcontroller 26/210 via RF transceiver 214, wherein door-position sensor transmitter 262 transmits signals indicating a position of a garage door to RF transceiver 214 (see Section [0028]); (c) RF transceiver 214 for transmitting and receiving short-range signals; and (d) phone network connection 60, pager network connection 62, and Internet interface 50 or long-range transceivers (see Sections [0018] and [0020]). Since Fitzgibbon's apparatus is able to receive signals from a cellular telephone and a paging network, apparatus 10/200 is compatible with a cellular telephone protocol and a paging protocol.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen and Hollstrom's door control circuit 110 as taught by Fitzgibbon because a door control circuit 110 that is able to communicate using a cellular telephone protocol and a paging protocol enables a user to operate door opener/closer 130 and determine door 140's position from almost any distance quickly and conveniently (see Fitzgibbon, Section [0006]).

Regarding claim 9, Cohen omits teaching connecting a camera to processor 200 for providing a camera view of door 140.

As shown in Fig. 1, Fitzgibbon teaches that apparatus 10 comprises camera 40, which is connected to microprocessor 26. Fitzgibbon discloses that camera 40 is for capturing the presence of an individual attempting to gain access to the garage door (see Section [0019]); thus it is understood that camera 40 provides a camera view of the garage door.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen's door control circuit 110 as taught by Fitzgibbon because a door control circuit 110 having a camera connected to processor 200 enables a user to determine from a remote location the identity of a person attempting to access door 140 (see Fitzgibbon, Section [0019]), thereby improving the system's security.

Regarding claims 10 and 18, Cohen fails to teach connecting a battery to processor 200 and the transceiver module.

Fitzgibbon teaches that power supply 226, as shown in Fig. 3, is a battery (see Section [0027]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen's door control circuit 110 such that a battery is

coupled to processor 200 and the transceiver module as taught by Fitzgibbon because a battery enables a user to control the system during power outages.

Regarding claims 12 and 19, the claims are rejected due to reasons stated above in Section 10.

Regarding claims 13 and 25, the claims are rejected due to reasons stated above in Section 10.

12. Claims 7, 11, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,388,559 (Cohen) and U.S. Patent Application Publication No. US 2001/0056502 A1 (Hollstrom et al.) in view of U.S. Patent No. 6,161,005 (Pinzon) or U.S. Patent Application Publication No. US 2004/0036573 A1 (Fitzgibbon et al.) as applied to claims 1 and 15 above, and further in view of U.S. Patent No. 6,346,889 (Moss).

Regarding claims 7, 11, and 20, Cohen and Hollstrom's position sensor, as modified by Pinzon or Fitzgibbon, lacks a magnetic switch. Cohen and Hollstrom, as modified by Pinzon or Fitzgibbon, also omit disclosing an optical sensor coupled to processor 200 for generating a light level signal based on light intensity in a region proximate to the door.

In an analogous art, Moss teaches a security system for an automatic garage door, as shown in Fig. 1A, that comprises: (a) microprocessor 104 coupled to door actuation circuitry (see Col. 9, lines 17 - 19); (b) sensing device 240 having a transceiver 242 and coupled to microprocessor 104 via signal 142 and adapted for generating a first position signal based on a position of door 202 (see Col. 6, lines 61 - 66; Col. 8, lines 37 - 40; and Col. 10, lines 47 - 49); and (c) wireless transceiver 144 coupled to microprocessor 104 (see Col. 6, lines 43 - 47). Per Moss, sensing device 240 includes any type of device or switch capable of sensing or determining the position of door 202 such as a magnetic, mechanical, IR, optical, photovoltaic, or motion sensor

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(see Col. 10, lines 47 - 53). When a photovoltaic sensor is used, the photovoltaic sensor's transceiver 242 transmits signals indicating the light level to device 100, and the device 100 generates an alarm when door 202 is open during nighttime hours (see Col. 4, lines 13 - 17; Col. 7, lines 63 - 67; and Col. 8, lines 1 - 7).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen, Hollstrom, and Pinzon's or Cohen, Hollstrom, and Fitzgibbon's door control circuit 110 as taught by Moss because (1) a magnetic switch is able to determine the position of door 140 along its trajectory along rail 150 (see Moss, Col. 10, lines 47 - 53) and (2) an optical sensor coupled to processor 200 enables processor 200 to transmit a light level signal in addition to state signal 111 to remote control device 170 indicating that door 140 is open when it is dark (see Moss, Col. 1, lines 55 - 63), thereby enhancing the security of the system.

13. Claims 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,388,559 (Cohen) as applied to claim 27 above, and further in view of U.S. Patent No. 6,161,005 (Pinzon).

Cohen fails to teach that the RF transceiver module includes a transceiver adapted for receiving open/close commands and transmitting state signal 111 via a long-range communication protocol, wherein the long-range communication protocol includes a cellular telephone communication protocol.

In an analogous art, as explained above in Section 10, Pinzon's network transceiver 6 is adapted to receive commands and transmit information in a protocol compatible with a cellular telephone communication protocol.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen's door control circuit 110 as taught by Pinzon for the reasons mentioned above regarding claims 1, 2, 15, and 16.

14. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,388,559 (Cohen) as applied to claim 27 above, and further in view of U.S. Patent Application Publication No. US 2004/0036573 A1 (Fitzgibbon et al.).

Regarding claims 28 and 29 Cohen fails to teach that the RF transceiver module includes a transceiver adapted for receiving open/close commands and transmitting state signal 111 via a long-range communication protocol, wherein the long-range communication protocol includes a cellular telephone protocol and a pager protocol.

In an analogous art, as explained above in Section 11, Fitzgibbon's apparatus is able to receive signals from a cellular telephone and a paging network, apparatus 10/200 is compatible with a cellular telephone protocol and a paging protocol.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen's door control circuit 110 as taught by Fitzgibbon because a door control circuit 110 that is able to communicate using a cellular telephone protocol and a paging protocol enables a user to operate door opener/closer 130 from almost any distance quickly and conveniently (see Fitzgibbon, Section [0006]).

15. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,388,559 (Cohen) as applied to claim 27 above, and further in view of U.S. Patent Application Publication No. US 2001/0056502 A1 (Hollstrom et al.).

Cohen and Pinzon fail to teach that door control circuit 110's transceiver is compatible with Bluetooth® technical specification version 1.0.

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In an analogous art, as explained above in Sections 10 and 11, Hollstrom teaches the limitations of claim 30.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cohen's door control circuit 110 as taught by Hollstrom because Bluetooth® is a widely adopted international standard that provides a low cost RF data link solution and reduces interference among devices operating in the 2.45 GHz band by using FHSS.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- ♦ U.S. Patent No. 4,463,292 (Engelmann): Engelmann teaches a garage door operator 17 that is coupled to an RF receiver 23 and switch S2, which is mounted so as to be contacted by door 11. When door 11 contacts switch S2, switch S2 sends a signal indicating that door 11 is in the open position to operator 17's control circuit.
- ♦ U.S. Patent No. 5,689,236 (Kister): Kister teaches a remote garage door position indicator that uses a magnetic sensor device.
- ♦ U.S. Patent Application Publication No. US 2002/0137460 A1 (Sun et al.): Sun teaches a universal multi-band keyless RF remote control unit that allows control of a garage door opener, keyless entry system, etc. Per Sun, the remote control unit comprises a Bluetooth® radio module that operates in the 2.4 GHz and additional circuits that allows the remote control unit to operate in five other frequency bands.

17. If a copy of a provisional application listed on the bottom portion of the accompanying Notice of References Cited (PTO-892) form is not included with this Office action and the PTO-892 has been annotated to indicate that the copy was not readily available, it is because the copy could not be readily obtained when the Office action was mailed. Should applicant desire a copy of such a provisional application, applicant should promptly request the copy from the Office of Public Records (OPR) in accordance with 37 CFR 1.14(a)(1)(iv), paying the required fee

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under 37 CFR 1.19(b)(1). If a copy is ordered from OPR, the shortened statutory period for reply to this Office action will not be reset under MPEP § 710.06 unless applicant can demonstrate a substantial delay by the Office in fulfilling the order for the copy of the provisional application. Where the applicant has been notified on the PTO-892 that a copy of the provisional application is not readily available, the provision of MPEP § 707.05(a) that a copy of the cited reference will be automatically furnished without charge does not apply.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (703) 305-4086. The examiner can normally be reached on 8:30 AM - 7:00 PM, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (703) 305-4704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CY
19 May 2004


BRIAN ZIMMERMAN
PRIMARY EXAMINER